Table 1 – Quality Criteria - Soil Erosion

RESOURCE CONCERN DEFINITIONS	QUALITY CRITERIA	ASSESSMENT TOOL	PRACTICES THAT MAY PROVIDE POSITIVE ENVIRONMENTAL EFFECTS*
Sheet and rill erosion: Removal of uniform layer of soil from the land surface caused by rainfall and surface water runoff.	The average annual soil loss is at or below tolerance (T) for the soil map unit.	USLE RUSLE RUSLE 2	Conservation Cover 327 Conservation Crop Rotation 328 Contour Buffer Strips 332 Contour Farming 330 Contour Stripcropping 585 Cover and Green Manure Crop 340 Diversion 362 Field Border 386 Forest Harvest Management 517 Prescribed Grazing 528A Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge till 329C Residue Management, Seasonal 344 Terrace 600 Use Exclusion 472
Ephemeral gully: Reoccurring gullies on cropland caused by concentrated flow of runoff water. They are obliterated by normal tillage operations.	Affected areas are stabilized.	Visual observation Erosion and Sediment Delivery Equation	Conservation Cover 327 Conservation Crop Rotation 328 Contour Buffer Strips 332 Contour Farming 330 Contour Stripcropping 585 Critical Area Planting 342 Diversion 362 Grade Stabilization Structure 410 Grassed Waterway 412 Field Border 386 Lined Waterway or Outlet 468 Mulching 484 Pasture and Hayland Planting 512 Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge Till 329C Residue Management, Seasonal 344 Structure for Water Control 587 Subsurface Drain 606

			Terrace 600 Water and Sediment Control Basin 638
Classic gully: Eroded channels that are too deep to be crossed with farm equipment. They may enlarge by head cutting and lateral widening.	Head cutting and lateral widening is stopped. Channel bottom and side slopes area stabilized.	Visual observation Sediment and Gully Prediction Model	Conservation Cover 327 Contour Buffer Strips 332 Contour Farming 330 Contour Stripcropping 585 Critical Area Planting 342 Diversion 362 Grade Stabilization Structure 410 Grassed Waterway 412 Pond 378 Terrace 600 Water and Sediment Control Basin 638
Scour: Channels caused by out of bank flow of streams or drainage channels.	Affected areas are stabilized considering flow velocity, depth, and probability of occurrence.	Visual observation	Conservation Cover 327 Dike 356 Filter Strip 393 Mulching 384 Riparian Forest Buffer 391 Sediment Basin 350 Structure for Water Control 587

Construction sites: Soil disturbance by a land use change.	Sheet and rill, ephemeral, and classic gully erosion are controlled and sediment leaving the site does not cause damage.	Gully Erosion Equation Sediment and Gully Prediction Model Urban Erosion Handbook Visual observation	Conservation Cover 327 Critical Area Planting 342 Diversion 362 Heavy Use Area Protection 561 Mulching 484 Sediment Basin 350
Streambank: Sloughing of banks caused by streamflows, overbank flows, unstable soils, obstructions, unstable channel bottom, livestock trampling, or heavy equipment use.	The actions of the decision-maker do not contribute to the problem and sloughing is controlled to the extent technically and economically feasible.	Visual observation	Conservation Cover 327 Critical Area Planting 342 Fencing 382 Filter Strip 393 Obstruction Removal 500 Prescribed Grazing 528A Riparian Forest Buffer 391 Streambank and Shoreline Protection 580 Use Exclusion 472
Wind: Soil removal and redistribution or selective sorting and removal of fine soil particles by wind.	Soil loss is controlled to the tolerance (T) level for the soil map unit.	Wind Erosion Equation	Conservation Cover 327 Conservation Crop Rotation 328 Cover and Green Manure Crop 340 Cross Wind Trap Strips 589C Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge till 329C Residue Management, Seasonal 344 Stripcropping, Wind 589 Tree/Shrub Establishment 612 Windbreak Renovation 650 Windbreak/Shelterbelt Establishment 380

*Combination of practices which will likely meet quality criteria may be found in the FOTG, Section V.

Table 1 – Quality Criteria - Soil Condition

RESOURCE CONCERN DEFINITIONS	QUALITY CRITERIA	ASSESSMENT TOOL	PRACTICES THAT MAY PROVIDE POSITIVE ENVIRONMENTAL EFFECTS*
Compaction: Compaction zones are created by traffic for other management practices.	Management induced compaction zones that limit plant growth, soil tilth, and/or water movement are reduced or eliminated through tillage and soil management.	Soil Quality Test Kit Probe Visual Observation	Conservation Cover 327 Conservation Crop Rotation 328 Contour Stripcropping 585 Cover and Green Manure Crop 340 Pasture and Hayland Planting 512 Prescribed Grazing 528A Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge till 329C Residue Management, Seasonal 344 Subsurface Drain 606
Poor soil tilth: A physical soil condition that limits suitability for tillage and seedling emergence and reduces the effectiveness of the soil, water and air resources for plant growth.	The actions of decision-maker improves the physical soil condition and reduces an identified tilth problem.	Soil Quality Test Kit Probe Visual Observation	Conservation Cover 327 Critical Area Planting 342 Contour Buffer Strips 332 Contour Stripcropping 585 Conservation Crop Rotation 328 Residue Management, No-Till and Strip Till 329A Residue Management, Mulch Till 329B Residue Management, Ridge Till 329C Residue Management, Seasonal 344 Subsurface Drain 606
Soil contaminants from excess animal waste and other organics: Excess amounts restrict plant growth.	Animal wastes and other organics are applied at levels that do not restrict growth of desirable plants.	Soil Quality Test Kit Soil Tests Corn Stalk Test (ISU) Late Spring Nitrogen Test (ISU)	Composting Facility 317 Conservation Cover 327 Cover and Green Manure Crop 340 Filter Strip 393 Nutrient Management 590 Waste Storage Facility 313 Waste Treatment Lagoon 350 Waste Utilization 633

		P-Index Visual Observation	
Soil contaminants from excess pesticides: Excess pesticides negatively impacting the soil and plant communities.	Pests are managed in a manner that does not adversely affect growth of desirable plants. This includes using alternative methods of pest control, using the lowest effective amount of pesticide, and rotating pesticides.	WIN-PST Visual Observation	Conservation Cover 327 Conservation Crop Rotation 328 Cover and Green Manure Crop 340 Pest Management 595

*Combination of practices which will likely meet quality criteria may be found in the FOTG, Section V.

Table 1 – Quality Criteria - Soil Deposition

RESOURCE CONCERN DEFINITIONS	QUALITY CRITERIA	ASSESSMENT TOOL	PRACTICES THAT MAY PROVIDE POSITIVE ENVIRONMENTAL EFFECTS*
Damage: Soil deposition adversely affects properties related to plant growth or intended land use.	Deposition does not alter the plant-soil relationship, damage property, cause physical damage to vegetation, or limit the intended land use.	Soil Quality Test Kit Visual observation Erosion and Sediment Delivery Model	Conservation Cover 327 Conservation Crop Rotation 328 Contour Buffer Strips 332 Contour Farming 330 Contour Stripcropping 585 Critical Area Planting 342 Dike 356 Diversion 362 Filter Strip 393 Grade Stabilization Structure 410 Grassed Waterway 412 Riparian Forest Buffer 391 Terrace 600 Water and Sediment Control Basins 638
Safety: Deposition on roads, in culverts or at locations which cause unsafe conditions, flooding, or loss of access.	Deposition does not create a safety hazard.	Visual observation	Conservation Cover 327 Critical Area Planting 342 Crop Residue Use 344 Contour Farming 330 Contour Buffer Strips 332 Conservation Crop Rotation 328 Dike 356 Diversion 362 Filter Strip 393 Mulching 484 Riparian Forest Buffer 391 Terrace 600 Water and Sediment Control Basins 638

*Combination of practices which will likely meet quality criteria may be found in the FOTG, Section V.